

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1.-15 (cancelled).

16. (currently amended): ~~A profile producing method according to claim 1,~~

A profile producing method of producing a profile representative of an association between a first color data representative of coordinates on a device-dependence color space dependent on a device mediating between image data including color data and a color image, and a second color data representative of coordinates on a common color space independent of devices, said profile producing method comprising:

a color association definition obtaining step of obtaining a color a definition defining an association between the first color data representative of coordinates on the device-dependence color space and the second color data representative of coordinates on the common color space;  
and

a profile producing step of producing a profile defining an association between the first color data representative of coordinates on the device-dependence color space and smoothed second color data representative of coordinates on the common color space, in accordance with the color association definition obtained in said color association definition obtaining step, via a smoothing step of smoothing the second color data representative of coordinates on the common

color space to the first color data representative of coordinates on the device-dependence color space,

wherein the smoothing step further comprising:

using the horizontal axis to denote dot% values of a first color data;

using the vertical axis to denote chromaticity values of a second color data;

obtaining a curve approximating data before the smoothing step; and

moving the data before the smoothing step on the curve.

17. (currently amended): ~~A profile producing method according to claim 1,~~

A profile producing method of producing a profile representative of an association between a first color data representative of coordinates on a device-dependence color space dependent on a device mediating between image data including color data and a color image, and a second color data representative of coordinates on a common color space independent of devices, said profile producing method comprising:

a color association definition obtaining step of obtaining a color a definition defining an association between the first color data representative of coordinates on the device-dependence color space and the second color data representative of coordinates on the common color space;  
and

a profile producing step of producing a profile defining an association between the first color data representative of coordinates on the device-dependence color space and smoothed second color data representative of coordinates on the common color space, in accordance with the color association definition obtained in said color association definition obtaining step, via a smoothing step of smoothing the second color data representative of coordinates on the common

color space to the first color data representative of coordinates on the device-dependence color space.

wherein the smoothing step further comprising:

using the horizontal axis to denote dot% values of a first color data;

using the vertical axis to denote chromaticity values of a second color data;

obtaining at least two data before the smoothing step; and

obtaining an average of the at least two data before the smoothing step.

18. (cancelled).

19. (currently amended): ~~A profile producing apparatus according to claim 8, A~~  
profile producing apparatus for producing a profile representative of an association between a  
first color data representative of coordinates on a device-dependence color space dependent on a  
device mediating between image data including color data and a color image, and a second color  
data representative of coordinates on a common color space independent of devices, said profile  
producing apparatus comprising:

a color association definition obtaining section for obtaining a color association definition  
defining an association between the first color data representative of coordinates on the device-  
dependence color space and the second color data representative of coordinates on the common  
color space; and

a profile producing section for producing a profile defining an association between the  
first color data representative of coordinates on the device-dependence color space and smoothed  
second color data representative of coordinates on the common color space, in accordance with  
the color association definition obtained in said color association definition obtaining section,

said profile producing section including a smoothing processing section for smoothing the second color data representative of coordinates on the common color space to the first color data representative of coordinates on the device-dependence color space, wherein the smoothing processing section further comprising:

- means for using the horizontal axis to denote dot% values of a first color data;
- means for using the vertical axis to denote chromaticity values of a second color data;
- means for obtaining a curve approximating data before smoothing; and
- means for moving the data before smoothing on the curve.

20. (currently amended): ~~A profile producing apparatus according to claim 8,~~

A profile producing apparatus for producing a profile representative of an association between a first color data representative of coordinates on a device-dependence color space dependent on a device mediating between image data including color data and a color image, and a second color data representative of coordinates on a common color space independent of devices, said profile producing apparatus comprising:

a color association definition obtaining section for obtaining a color association definition defining an association between the first color data representative of coordinates on the device-dependence color space and the second color data representative of coordinates on the common color space; and

a profile producing section for producing a profile defining an association between the first color data representative of coordinates on the device-dependence color space and smoothed second color data representative of coordinates on the common color space, in accordance with the color association definition obtained in said color association definition obtaining section,

said profile producing section including a smoothing processing section for smoothing the second color data representative of coordinates on the common color space to the first color data representative of coordinates on the device-dependence color space,

wherein the smoothing processing section further comprising:

means for using the horizontal axis to denote dot% values of a first color data;

means for using the vertical axis to denote chromaticity values of a second color data;

means for obtaining at least two data before smoothing; and

means for obtaining an average of the at least two data before smoothing.

21. (cancelled).